

THIN-FILM CAPACITOR DEVICE, MOUNTING MODULE FOR THE SAME,
AND METHOD FOR FABRICATING THE SAME

ABSTRACT OF THE DISCLOSURE

The invention is directed to a thin-film capacitor device that is adapted to be mounted on a printed wiring board together with an LSI device. After forming a plurality of grooves in a core substrate, a first conductive film is formed, and a first conductor is filled into each groove. After forming a metal film on the first conductive film, a dielectric film is generated by selective anodic oxidation of the metal film. A second conductive film is formed on the dielectric film, and an electrode connected to the second conductive film is formed. After removing the back surface of the core substrate until the grooves are exposed therein, an electrode for connection to the first conductor in each groove is formed. A capacitor is formed by the first conductive film and second conductive film sandwiching the dielectric film therebetween.